

YELLOW WATER DAM

Fact Sheet

PROJECT DESCRIPTION

- Impounds Yellow Water Creek, located in Petroleum County, 12 miles southwest of Winnett, constructed in 1938.
- Owned by DNRC; operated by the Yellow Water Water Users Association since 1938.
- Project consists of:
 - 37 foot-high, 1,695 foot-long, earthfill dam.
 - Uncontrolled trapezoidal earth and rock lined spillway.
 - 42-inch reinforced concrete pipe outlet, 150 foot-long.
 - One 42-inch slide gate valve with manual operator.
- Storage at full pool is 3,842 acre-feet, covering 490 surface acres.
- The Yellow Water Water Users Association has 4 contracts for 2,000 acre-feet of water.
- The west and south shores of the reservoir are part of the War Horse National Wildlife Refuge, managed by the U.S. Fish and Wildlife Service. The reservoir serves as an important nesting area for waterfowl.
- The dam is a “high hazard” structure, which means that its failure could cause loss of life.

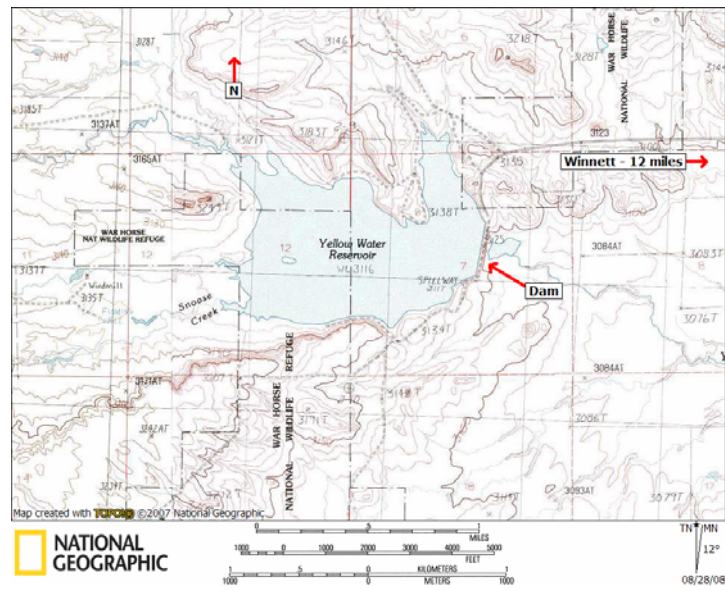
PROJECT DEFICIENCIES AND CORRECTIVE ACTIONS

- In 1979, the original spillway was eroding and starting to threaten the embankment. A new spillway was configured running parallel to the embankment utilizing the original spillway entrance.
- In 1980 the Army Corps of Engineers performed an inspection and condemned the outlet due to excessive corrosion of the original CMP.
- Yellow Water Dam underwent a two phase rehabilitation project in 1985. Phase I included the embankment excavation and removal of the original outlet conduit. Phase II included the construction of a new outlet conduit (42-inch diameter reinforced concrete pipe), the inlet and outlet structures, cleaning the original gate and placing riprap on a portion of the upstream face.
- In 2004 the SWP installed 5 monitoring wells with deep and shallow piezometers to enhance the monitoring program. The reservoir has not filled since that time.

FUTURE NEEDS

- The intake structure has a history of plugging up with sediment when the gate is closed during the off season. The intake structure may have to be modified or redesigned and replaced to prevent plugging.
- Seepage has been observed in the vicinity of the left abutment. The drain system may have to be improved to better control and monitor seepage flows.

Estimated Cost of the above repairs: \$500,000



Upstream face



Dam Crest



Downstream face